DOE Standardized Canister and HIC

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June 27, 2001

NSNFP Guidance

"Years ago we discovered the exact point the dead center of middle age. It occurs when you are too young to take up golf and too old to rush up to the net.“

-Franklin Adams

Standardized Canister Plans

- *Complete friction parameter scientific investigation to justify drop analysis methodology*
- *Continue pursuing ASME Code changes*
- *Continue support to repository studies*
- *Continue support to Foster Wheeler contract*

Status of ASME Code Changes

Change	Reason	Passed NUPACK	Current Status
Allow Field Operations	Final closure weld can be made at the loading site.	Yes Revised Subsection WA	Passed – To be issued
Alternate Stamping Requirements	N-stamp is valid after acceptance of final closure weld.	Yes Revised Subsection WA	Passed – To be issued
Allow Ultrasonic Testing for Weld Examination	UT instead of radiography can be used for final closure weld examinations.	Yes Revised WB-5279	Passed – To be issued
Allow Leak Testing in Lieu of Pressure Testing	Option of helium leak testing can be used.	Yes but held by NUPACK Chair to coordinate with new Subsection WC	Expedite new Division 3 Code Case

Friction Parameter Test Specimen - Flat Bottom

Friction Parameter Test Specimen - Thin Wall

Future Canister Plans

- *Evaluate elevated temperature canister drop responses for survivability*
- *Evaluate aged canister drop responses for survivability*
- *Demonstrate leaktight capabilities of canisters with flaws for drop events*

Future Canister Plans (cont.)

- *Demonstrate performance of 24-inch canisters*
- *Complete internals report in near-term and possible update as necessary when other studies or factors are completed:*
  - *C-22 /Gadolinium Alloy*
  - *Foster Wheeler finalized designs*
  - *Updates required from on-going criticality evaluations*

High Integrity Can (HIC)

- *Developed for handling and packaging of failed fuel*
- *Material - Hastaloy C-22*
- *Designed to withstand 30 ft drop*
- *Removable screw on lid*
- *Seal leak rate less than 10^{-4} cc/min*
- *First HIC complete by 9/30/01*
- *First HIC for packaging sectioned TRIGA rods*

High Integrity Canisters